

## SUPPLIER CHOICE ON FURNITURE INDUSTRY

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### Abstract

One of the important factors of furniture industry, which can compete at national and international markets, can provide intended quality and amount raw material. For this reason, it has had importance that evaluation and selection methods of raw material suppliers. The supply-chain management system has aimed that it controls material supply, production and distribution stages in supply-chain from raw material to production and then end user.

In this study, according to subject of production and number of workers it has researched criterions for supplier choice in enterprises by face to face survey method at 295 furniture industry enterprises in 24 Organized Industrial Zones. It has been found that the criterions of delivery on time (90%), quality of raw material (88%) and sufficiency at engineering design (76,9%) are important for the supplier choice.

**Keywords:** Furniture, Supplier Choice, Supplier Evaluation, Organized Industrial Zone.

### 1. Introduction

The raw material, supply, effort in essential quality and quantity are important for a good quality of production in accordance with customer desires and expectations at furniture industry. It is required that needed raw material is supplied as quantity and quality in time.

The supply chain can define as a chain which links each other all stages (suppliers, production centers, stores, distribution sites, retailers, etc.) from raw material supplier to end users [1,2]. The supply chain management relates to production, logistic, material, distribution and the coordination of transportation functions. It concentrates on how the

firms will use technology and supply period of firms for outmaneuvering on competition [3]. The supplier management includes all of the done works between supplier and main production stage for performing enterprise's targets as quality, delivery on time, and cost. Basic expectation of customers from producer firms in all sectors is that getting high quality level, suitable price and delivered product on time [4]. The production period starts with raw material supply and ends with delivery of product. The supplier choice forms starting point about supporting of customer expectations. In line with the targets of the enterprises, there are many mutual advantages about suitable supplier choice in the long term [5].

Choosing the right supplier reduces purchasing costs and is effective on showing the product more quickly in market [6]. This situation increases the competitiveness of enterprises [7].

There are many studies on supplier choice [8,9,10,11,12]. Yalcin and Ozdemir [13] have evaluated suppliers of an enterprise in furniture industry considering uncertain situation about strategic decisions.

If it has been thought that raw material and component costs is approximately 70% of the total production cost, the raw material purchasing department in the enterprise is very important to understand [14]. On the other hand, it is important that contacting, developing, assessing, choosing and cooperation with suppliers of producers on uncertain situations about customer demand [15].

Falling within the scope of the raw material supply management, stock management, supplier choice criteria and evaluation of supplier performance are important issues. The thought and behaviors of the enterprises in these issues can determine benefits from suppliers. On the raw material supply management for the success, largely depends on sensitivity and consideration at supplier choice. Another important issue is the evaluation of the supplier performance from time to time and with that is to take the necessary steps (13,2).

In this study, it has been researched that the effectiveness of quality control staff at supplier choice and furniture enterprises in organized industry zone what they give importance for raw material supply.

## 2. Materials and Methods

The survey has been made on 302 furniture industry firms which they take place in Organized Industry Region in 24 different cities. The surveys have been filled out by purchasing staff, manager and business owner. The necessary explanations have been made to persons who filled out the surveys. 295 pieces from this survey were suitable for evaluation. All of the surveys were numbered and the questions were coded by 5-point Likert scale (Strongly Not Important=1, Not Important=2, Normal=3, Important=4, Strongly Important=5), then the data input has been done to SPSS program. The greater part of surveys have been filled out in Bursa (22,4%), Ankara (21,4%), İstanbul (19,3%) and Kayseri (10,8%) why these cities have intensive furniture industry. These four cities constitute approximately 74% of the surveys.

The questions have been evaluated in two different ways at cross-tables: according to enterprise types about total (T) and including their in row (R). Firstly, frequency tables have been made to give more reliable results of the tests. and low frequency question options have been combined. Due to taking up space of made in the 95% confidence level chi-square test result tables so only the result (P) has been given. If  $p_{\text{result}} < 0.05$  is a result, there are important differences among the types of enterprise ( $H_0$ ). If  $p_{\text{result}} > 0.05$  is a result, there are no significant differences among the types of enterprise ( $H_1$ ).

## 3. Results

After result of evaluation of obtained data, as the responsibility of the quality control department, to what extent the support when purchasing supplier choice has been given in Table 1. It has been compared that the importance of help to purchasing department at supplier choice and the differences among the types of enterprise by chi square test made in 95% confidence level. According to chi-square test results, it has determined that there are no significant differences ( $p_{\text{result}} > 0.05$ ) among the types of enterprise.

Table 1. As the responsibility of the quality control department, help to purchasing department at supplier choice

		Normal %		Important %		Very Important %		Total %
		T	R	T	R	T	R	
*Production Issue	Various Furniture			18,0	84,5	3,3	15,5	21,3
	Seating Group, Sofa, Sofabed	9,9	35,5	13,1	47,0	4,9	17,5	27,9
	Bed, Dining Room, Kitchen Furniture	3,3	25,2	3,3	25,2	6,5	49,6	13,1
	Office, Hotel, Modular Furniture and Decoration	3,3	14,4	9,8	42,8	9,8	42,8	22,9
	Young, Children's Room	1,6	24,2	1,7	25,8	3,3	50,0	6,6
	Chopping, Door, Profile, Chair, Table	1,6	19,5	4,9	59,8	1,7	20,7	8,2
	Total	19,7		50,8		29,5		100
*Scale Size	1-9 Person	0,8	44,4			1,0	55,6	1,8
	10-49 Person	6,3	15,6	25,3	62,8	8,7	21,6	40,3
	50-99 Person	8,0	20,7	15,8	40,9	14,8	38,4	38,6
	100 - + Person	4,6	23,8	9,7	50,3	5,0	25,9	19,3
	Total	19,7		50,8		29,5		100

\*  $p_{result} > 0.05$  no difference among them

When considered in total; it has been determined normal that as the responsibility of the quality control department, importance of help to purchasing department at supplier choice about seating group, sofa, sofa bed manufacturers in 9,9% part (35,5%), bed, dining room, kitchen furniture manufacturers in 3,3% part (25,2), the employed 100 and more person manufacturers in 4,6% part (23,8%). Moreover, it has found too high that the importance of help to purchasing department at supplier choice about young, children's room in 50% part, the employed 50-99 person manufacturers in 38,4% part, as the responsibility of the quality control department. It has found that 19,7% of enterprises was normal, 50,8% of them was important, and 29,5% part was very important.

At supplier firm choice, it has compared that to be formal or informal meetings between purchasing staff and quality of staff by chi-square test. Also according to the scale size

and production options, it has determined that no important differences ( $p>0.05$ ) among the enterprises. The obtained cross-table values have been given in Table 2. It has been determined that any meeting was not the producing various furniture enterprises in 6,5% part (28,8%) and the employed 10-49 person manufacturers in 10,1% part (24,3%) between purchasing staff and quality of staff at supplier choice. On the other hand, it has found that the informal meetings were in 11,3% part (87,6%) of the producing bed-dining room-kitchen furniture enterprises, all of the producing young-children's room enterprises, and 26,4% part (69,7%) of the employed 50-99 person enterprises between purchasing staff and quality of staff. Also, it has determined that formal meetings were in 3,2% part (39,5%) the producing door-table-chair enterprises, and 8,6% part (45,2%) of the employed 100 and more person enterprises between purchasing staff and quality of staff. At supplier firm choice, it has found that 21% of enterprises made formal meeting, 62,9% of them made informal meeting, and 16,1% part has no meeting between purchasing staff and quality of staff.

Table 2. The formal and informal meetings between purchasing staff and quality of staff at supplier firm choice

		Formal Meeting %		Informal Meeting%		No Meeting%		Total %
		T	R	T	R	T	R	
*Production Issue	Various Furniture	4,8	21,2	11,3	50,0	6,5	28,8	22,6
	Seating Group, Sofa, Sofabed	6,5	23,8	17,6	64,5	3,2	11,7	27,3
	Bed, Dining Room, Kitchen Furniture			11,3	87,6	1,6	12,4	12,9
	Office, Hotel, Modular Furniture and Decoration	6,5	28,8	11,3	50,0	4,8	21,2	22,6
	Young, Children's Room			6,5	100			6,5
	Chopping, Door, Profile, Chair, Table	3,2	39,5	4,9	60,5			8,1
	Total	21,0		62,9		16,1		100
*Scale Size	1-9 Person			1,7	100			1,7
	10-49 Person	5,9	14,3	25,4	61,4	10,1	24,3	41,4
	50-99 Person	6,5	17,1	26,4	69,7	5,0	13,2	37,9

	100 - + Person	8,6	45,2	9,4	49,5	1,0	5,3	19,0
	Total	21,0		62,9		16,1		100

\*  $p_{\text{result}} > 0.05$  no difference among them

The effectiveness of the quality control staff in the supplier firm choice, has been compared at 95% confidence level by the chi-square test. According to the scale size and production options, it has determined that no important differences ( $p > 0.05$ ) among the enterprises. As shown in Table 3, it has determined that the effectiveness of the quality control staff were at low degree in 1,7% part (26%) of the producing young-children's room enterprises, and 6,4% part (16,9%) of the employed 50-99 person enterprises at supplier firm choice. It has found that the effectiveness of the quality control staff were at high degree in 6,5% part (28,7%) of the producing office, hotel, modular furniture and decoration enterprises, and 7% part (36,8%) of the employed 100 and more person enterprises. About the effectiveness of the quality control staff in the supplier firm choice, it has determined that 12,9% of enterprises was at low degree, 41,9% of them was normal, 24,2% of them was at high degree, and 21% part was at too high degree.

Table 3. The effectiveness of the quality control staff in the supplier firm choice

		Low %		Normal %		High %		Very High %		Total %
		T	R	T	R	T	R	T	R	
*Production Issue	Various Furniture	3,3	14,6	12,9	57,1	4,8	21,2	1,6	7,1	22,6
	Seating Group, Sofa, Sofabed	4,7	17,2	8,0	29,3	6,5	23,8	8,1	29,7	27,3
	Bed, Dining Room, Kitchen Furniture			6,5	50,4	3,2	24,8	3,2	24,8	12,9
	Office, Hotel, Modular Furniture and Decoration	3,2	14,2	8,0	35,4	6,5	28,7	4,9	21,7	22,6
	Young, Children's Room	1,7	26,2	1,6	24,6	1,6	24,6	1,6	24,6	6,5
	Chopping, Door, Profile, Chair, Table			4,9	60,6	1,6	19,7	1,6	19,7	8,1
	Total	12,9		41,9		24,2		21,0		100
*Scale Size	1-9 Person					1,7	100			1,7
	10-49 Person	3,5	8,4	21,0	50,7	8,6	20,8	8,3	20,1	41,4
	50-99 Person	6,4	16,9	14,8	39,1	6,9	18,2	9,8	25,8	37,9
	100 - + Person	3,0	15,8	6,1	32,1	7,0	36,8	2,9	15,3	19,0
	Total	12,9		41,9		24,2		21,0		100

\*  $p_{\text{result}} > 0.05$  no difference among them

According to Table 4, it has been determined that the presence of a criteria on the supplier firm choice in the enterprises is in the producing of bed, dining Room, kitchen furniture enterprises in 14,9% part (78,6%), the employed 100 and more person enterprises in 4,2% part (80%). On the other hand, it has found that the no a criteria about supplier firm choice was in 3,1% part (40,9%) of the producing chopping, door, profile, chair, table enterprises, and 14,3% part (23,1%) of the employed 10-49 person enterprises. It is determined that 66,8% of enterprises had criteria on supply firm choice, 19,6% of them had no criteria, 13,6% of them worked on developing a criteria.

Table 4. The presence of the criteria in the supplier choice

		Available %		Nonavailable %		Developing %		Total %
		T	S	T	S	T	S	
*Production Issue	Various Furniture	22,0	60,7	9,2	25,3	5,1	14,0	36,3
	Seating Group, Sofa, Sofabed	12,9	71,7	2,3	13,2	2,7	15,1	17,9
	Bed, Dining Room, Kitchen Furniture	14,9	78,6	2,7	14,3	1,4	7,1	19,0
	Office, Hotel, Modular Furniture and Decoration	9,2	69,3	2,3	17,9	1,7	12,8	13,2
	Young, Children's Room	4,7	77,8			1,4	22,2	6,1
	Chopping, Door, Profile, Chair, Table	3,1	40,9	3,1	40,9	1,3	18,2	7,5
	Total	66,8		19,6		13,6		100
*Scale Size	1-9 Person	12,6	73,5	2,5	14,3	2,2	12,2	17,3
	10-49 Person	40,5	63,2	14,3	23,1	8,9	13,7	63,7
	50-99 Person	9,5	71,1	2,8	18,4	1,4	10,5	13,7
	100 - + Person	4,2	80,0			1,1	20,0	5,3
	Total	66,8		19,6		13,6		100

\*  $P_{result} > 0.05$  no difference among them

The price, quality and time of delivered product, interaction and trust, the quality management of supplier firms have been examined among Table 5-9 for assessment of supplier firms.

As seen in Table 5, it has been found that the product price for the assessment on supplier firms was important in 8,5% part (44,7%) of the producing bed, dining room, kitchen furniture enterprises, and 7,4% part (42,8%) of the employed 1-9 person enterprises. Also, it has been determined that the product price for the assessment on supplier firms was very important in 9,5% part (52,1%) of the producing seating group, sofa, sofabed enterprises, and 9,3% part (53,7%) of the employed 1-9 person enterprises. About the effect of product price for the assessment on supplier firms, it has

been found that 13,6% of enterprises was normal, 38,6% of them was important, 24,2% of them was very important.

Table 5. The effect of product price on assessment of supplier firms

		Normal %		Important %		Very Important %		Total %
		T	R	T	R	T	R	
*Production Issue	Various Furniture	5,1	14,1	15,9	43,8	15,3	42,1	36,3
	Seating Group, Sofa, Sofabed	2,0	11,1	6,4	35,8	9,5	52,1	17,9
	Bed, Dining Room, Kitchen Furniture	1,4	7,4	8,5	44,7	9,1	48,9	19,0
	Office, Hotel, Modular Furniture and Decoration	2,4	18,2	3,4	25,8	7,4	56,0	13,2
	Young, Children's Room	0,3	4,9	2,7	44,3	3,1	50,8	6,1
	Chopping, Door, Profile, Chair, Table	2,4	32,0	1,7	22,7	3,4	45,3	7,5
	Total	13,6		38,6		47,8		100
*Scale Size	1-9 Person	0,6	3,5	7,4	42,8	9,3	53,7	17,3
	10-49 Person	10,8	17,0	24,2	38,0	28,7	45,0	63,7
	50-99 Person	1,8	13,1	4,9	35,8	7,0	51,1	13,7
	100 - + Person	0,4	7,6	2,1	39,6	2,8	52,8	5,3
	Total	13,6		38,6		47,8		100

\*  $p_{\text{result}} > 0.05$  no difference among them

According to the scale size and production options, it has found that there are important differences ( $p < 0.05$ ) among the enterprises by the chi-square test at 95% confidence level. According to Table 6, it has been found that the effect of delivered product quality for assessment supplier firm was very important in 4,5% part (60%) of the producing chopping, door, profile, chair, table enterprises, 9,8% part (54,7%) of the producing seating group, sofa, sofabed enterprises, and 4,2% part (79,2%) of the employed 100 and more person enterprises. About the effect of delivered product quality for assessment supplier firm, it has been determined that 10,8% of enterprises was normal, 37,3% of them was important, 51,9% of them was very important.



Tablo 6. The effect of delivered product quality for assessment supplier firm

		Normal %		Important %		Very Important %		Total %
		T	R	T	R	T	R	
*Production Issue	Various Furniture	3,7	10,2	15,3	42,1	17,3	47,7	36,3
	Seating Group, Sofa, Sofabed	1,0	5,6	7,1	39,7	9,8	54,7	17,9
	Bed, Dining Room, Kitchen Furniture	1,7	8,9	7,1	37,4	10,2	53,7	19,0
	Office, Hotel, Modular Furniture and Decoration	1,4	10,6	4,4	33,3	7,4	56,1	13,2
	Young, Children's Room	0,3	4,9	3,1	50,8	2,7	44,3	6,1
	Chopping, Door, Profile, Chair, Table	2,7	36,0	0,3	4,0	4,5	60,0	7,5
	Total	10,8		37,3		51,9		100
*Scale Size	1-9 Person	0,5	2,9	8,6	49,7	8,2	47,4	17,3
	10-49 Person	9,7	15,2	23,0	36,1	31,0	48,7	63,7
	50-99 Person	0,6	4,4	4,6	33,6	8,5	62,0	13,7
	100 - + Person			1,1	20,8	4,2	79,2	5,3
	Total	10,8		37,3		51,9		100

\*  $P_{result} > 0.05$  no difference among them

The importance of delivery product on time about assessment supplier firm of enterprises has been compared at 95% confidence level by the chi-square test. According to the production issue options, it has determined that there are important differences ( $p < 0.05$ ) among the enterprises but according to scale size, there are no important differences ( $p > 0.05$ ) among the enterprises. As shown in Table 7, it has been found that the effect of delivery product on time about assessment supplier firm was at high degree in 4,8% part (77,7%) of the producing young, children's room enterprises, 10,2% part (59%) of the employed 1-9 person enterprises, and 3,9% part (73,6%) of the employed 100 and more person enterprises. About the effect of delivery product on time for assessment supplier firm, it has been found that 9,5% of enterprises was normal, 32,9% of them was important, 57,6% of them was very important.

Tablo 7. The effect of delivery product on time for assessment supplier firm

		Normal %		Important %		Very Important %		Total %
		T	S	T	S	T	S	
*Production Issue	Various Furniture	2,7	7,4	13,6	37,5	20,0	55,1	36,3
	Seating Group, Sofa, Sofabed	0,7	3,9	4,4	24,6	12,8	71,5	17,9
	Bed, Dining Room, Kitchen Furniture	1,4	7,4	8,1	42,6	9,5	50,0	19,0
	Office, Hotel, Modular Furniture and Decoration	1,7	12,9	4,4	33,3	7,1	53,8	13,2
	Young, Children's Room	0,3	4,9	1,0	16,4	4,8	77,7	6,1
	Chopping, Door, Profile, Chair, Table	2,7	36,0	1,4	18,7	3,4	45,3	7,5
	Total	9,5		32,9		57,6		100
*Scale Size	1-9 Person	1,0	5,8	6,1	35,2	10,2	59,0	17,3
	10-49 Person	7,3	11,5	21,2	33,3	35,2	55,2	63,7
	50-99 Person	1,2	8,8	4,2	30,7	8,3	60,5	13,7
	100 - + Person			1,4	26,4	3,9	73,6	5,3
	Total	9,5		32,9		57,6		100

\*  $P_{result} > 0.05$  no difference among them

As seen in Table 8, the effect of interaction and trust have been researched on the assessment of supplier firm and there are no important difference ( $p > 0.05$ ) among the enterprises. It has been found that the effect of interaction and trust about assessment supplier firm was at normal degree in 27,9% part of the producing young, children's room enterprises, 20,4% part of the employed 50-99 person enterprises. On the other hand, it has been determined that the effect of interaction and trust about assessment supplier firm was at very important degree in 52,5% part of the producing seating group, sofa, sofabed enterprises, 66% part of the employed 100 and more person enterprises. In general, about the effect of interaction and trust on the assessment of supplier firm, it has been found that 14% of enterprises was low, 17,3% of them was normal, 42% of them was important and 39,3% part was very important.

Table 8. The effect of interaction and trust on the assessment of supplier firm

		Low %		Normal %		Important %		Very Important %		Total %
		T	R	T	R	T	R	T	R	
*Production Issue	Various Furniture	0,4	1,1	4,7	13,0	17,6	48,5	13,6	37,4	36,3
	Seating Group, Sofa, Sofabed			3,1	17,3	5,4	30,2	9,4	52,5	17,9
	Bed, Dining Room, Kitchen Furniture			3,7	19,5	7,9	41,6	7,4	38,9	19,0
	Office, Hotel, Modular Furniture and Decoration	0,3	2,3	2,4	18,2	7,1	53,8	3,4	25,7	13,2
	Young, Children's Room			1,7	27,9	2,0	32,8	2,4	39,3	6,1
	Chopping, Door, Profile, Chair, Table	0,7	9,3	1,7	22,7	2,0	26,7	3,1	41,3	7,5
	Total	1,4		17,3		42,0		39,3		100
*Scale Size	1-9 Person			2,0	11,5	8,7	50,3	6,6	38,2	17,3
	10-49 Person	1,4	2,2	12,1	19,0	26,0	40,8	24,2	38,0	63,7
	50-99 Person			2,8	20,4	5,9	43,1	5,0	36,5	13,7
	100 - + Person			0,4	7,6	1,4	26,4	3,5	66,0	5,3
	Total	1,4		17,3		42,0		39,4		100

\*  $P_{result} > 0.05$  no difference among them

According to the scale size and production options, there are no important differences ( $p > 0.05$ ) among the enterprises in Table 9. It has been found that the effect of owned quality management about assessment supplier firm was at normal degree in 5,8% part (43,9%) of the producing office, hotel, modular furniture and decoration enterprises, 3,4% part (45,3%) of the producing chopping, door, profile, chair, table enterprises, and 25,6% part (40,2%) the employed 10-49 person enterprises. In addition, It has been determined that the effect of owned quality management about assessment supplier firm was very important in 1,4% part (23%) of the producing young, children's room enterprises, 4,4% part (32,1%) the employed 50-99 person enterprises. About the effect of owned quality management about assessment supplier firm, it has been found that 10,8% of enterprises was low, 38,3% of them was normal, 30,2% of them was important and 19,6% part was very important.

Table 9. The effect of owned quality management about assessment supplier firm

		Low %		Normal %		Important %		Very Important %		Total %
		T	R	T	R	T	R	T	R	
*Production Issue	Various Furniture	3,7	10,2	15,6	43,0	9,8	27,0	7,2	19,8	36,3
	Seating Group, Sofa, Sofabed	2,4	13,4	5,8	32,4	6,4	35,8	3,3	18,4	17,9
	Bed, Dining Room, Kitchen Furniture	2,7	14,2	5,8	30,5	6,4	33,7	4,1	21,6	19,0
	Office, Hotel, Modular Furniture and Decoration	1,4	10,6	5,8	43,9	4,1	31,1	1,9	14,4	13,2
	Young, Children's Room			2,0	32,8	2,7	44,2	1,4	23,0	6,1
	Chopping, Door, Profile, Chair, Table	1,7	22,7	3,4	45,3	0,7	9,3	1,7	22,7	7,5
	Total	11,9		38,3		30,2		19,6		100
*Scale Size	1-9 Person	2,5	14,5	5,6	32,4	7,1	41,0	2,1	12,1	17,3
	10-49 Person	8,3	13,0	25,6	40,2	17,6	27,6	12,2	19,2	63,7
	50-99 Person	0,8	5,9	5,1	37,2	3,4	24,8	4,4	32,1	13,7
	100 - + Person	0,3	5,7	2,0	37,7	2,1	39,6	0,9	17,0	5,3
	Total	11,9		38,3		30,2		19,6		100

\*  $P_{result} > 0.05$  no difference among them

As shown in Table 10 and 11, the importance of each criteria on the assessment of supplier firms has been sorted that delivery on time, the quality and price of product took place at first ranks but the using of statistical quality control of supplier firm took place at last rank.

When the criteria of the supplier firms assessment were examined according to scale size, delivery on time (4,53) was at first rank; quality of delivered product (4,40) was at second rank and the quality management of supplier firm (3,50) was at last rank in the employed 1-9 person enterprises. It has been found that quality of delivered product (4,56) was at first rank; delivery on time (4,48) was at second rank; the using of statistical quality control of supplier firm (3,48) was at last rank in the employed 50-99 person enterprises.

Table 10. The importance of each criteria at below on the assessment of supplier firms

Factors	SCALE SIZE							
	1- 9 Person		10-49 Person		50-99 Person		100 and more Person	
	Order of Importance	Avg	Order of Importance	Avg	Order of Importance	Avg	Order of Importance	Avg
Price	3	4,48	3	4,27	3	4,38	4	4,46
Quality of Delivered Product	5	4,40	2	4,32	1	4,56	1	4,80
Delivery on Time	1	4,53	1	4,43	2	4,48	2	4,73
Technic (Design) Efficiency	7	3,95	5	4,05	5	4,00	5	4,45
Interaction and Trust	6	4,24	4	4,13	4	4,15	3	4,60
Using of Statistical Quality Control of Supplier Firm	4	3,47	7	3,50	7	3,48	6	3,67
The Quality Management of Supplier Firm	2	3,51	6	3,51	6	3,74	7	3,60

According to production issue, delivery on time (4,72) was at first rank; the price was at second rank in the producing of young, children's room enterprises. It has been determined to take place that quality of delivered product (4,22) was at first rank; the price (4,13) and the using of statistical quality control of supplier firm (3,22) was at last rank in the producing chopping, door, profile, chair, table enterprises.

Table 11. The application of quality management and according to production issue, the importance of each criteria on the assessment of supplier firms

	PRODUCTION ISSUE											
Factors	Various Furniture		Seating Group, Sofa, Sofabed		Bed, Room, Dining Kitchen Furniture		Office, Modular Furniture and Decoration		Hotel, Young, Children's Room		Chopping, Door, Profile, Chair, Table	
	Order of Importance	Avg.	Order of Importance	Avg.	Order of Importance	Avg.	Order of Importance	Avg.	Order of Importance	Avg.	Order of Importance	Avg.
Price	3	4,28	3	4,41	3	4,41	3	4,38	2	4,44	2	4,13
Quality of Delivered Product	2	4,37	2	4,49	1	4,44	1	4,46	3	4,38	1	4,22
Delivery on Time	1	4,47	1	4,67	2	4,42	2	4,41	1	4,72	3	4,09
Technic (Design) Efficiency	5	3,98	5	4,15	5	4,07	4	4,20	5	4,05	5	3,90
Interaction and Trust	4	4,22	4	4,35	4	4,19	5	4,02	4	4,11	4	4,00
Using of Statistical Quality Control of Supplier Firm	7	3,47	6	3,64	7	3,53	6	3,56	6	3,88	7	3,22
The Quality Management of Supplier Firm	6	3,56	7	3,60	6	3,62	7	3,51	7	3,87	6	3,31

#### **4. Discussion**

The assessment of supplier firm, it is sign for the furniture industry how much give importance to supplier choice that to be and develop criteria in nearly 80% of enterprises. The most important factors about supplier choice are delivery on time (90,5%), quality of delivered product (89,2%) and it's cost (86,4%), respectively, in furniture industry enterprises which take place on OSB.

It is located on the last stages at firm assessments that the using of statistical quality control of the supplier firm and their quality management. The criteria which used for supplier firm choice, as examined according to scale size, the employed 1-9 person enterprises for delivery on time and the cost; the employed 10-49 person enterprises for delivery on time and quality of delivered product; the employed 50-99, 100 and more person enterprises for quality of delivered product and delivery on time pay attention.

Product prices for small enterprises are important on supplier assessments because of getting low enterprise capital. The number of worker, more and more, the importance of paid attention factors at supplier firm choice increase gradually. Because of this, when the enterprises grow, The education situations of purchasing department staff are increased and they get an effective role in enterprises.

The enterprises tend expensive materials towards stocking when the products are delivered lately from supplier firms. As a result, the cost of doing unnecessary stock can reach disturbing size. On the other hand, according to Kovanci[16] the early delivery, the enterprises can be in a difficult situation extra place for stocking the delivered product before their demands. Also, because of the importance quality of delivered products, the enterprises use quality inputs. The short term target of supplier management increase effectiveness and decrease stocks, cycle speed. Besides, the long term target is to increase profitability for customer satisfaction, market share and whole members of organization.

There are obligations that the enterprises minimize the cost for competing in national and international market by using their resources with the most economic method and produce quality low price product and service for the continuous satisfaction of customers.

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